1 1. (Original) Compounds having the structure of Formula 1:

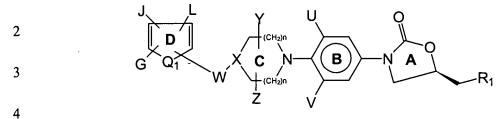
5 Formula I

- 6 and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters,
- 7 enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein
- 8 T is a five to seven membered heterocyclic ring, substituted heterocyclic ring, aryl or
- 9 substituted aryl, bound to the ring C with a linker W, and further substituted by a group
- represented by **R**, wherein R is H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, -CN, COR<sub>5</sub>, COOR<sub>5</sub>, N(R<sub>6</sub>,R<sub>7</sub>),
- 11 NHCOC( $R_8$ ,  $R_9$ ,  $R_{10}$ ), CON( $R_6$ ,  $R_7$ ), CH<sub>2</sub>NO<sub>2</sub>, NO<sub>2</sub>, CH<sub>2</sub>R<sub>8</sub>, CHR<sub>9</sub>, -CH = N-OR<sub>10</sub>, -
- 12 C=CH-R<sub>5</sub>, OR<sub>5</sub>, SR<sub>5</sub>, -C(R<sub>9</sub>)=C(R<sub>9</sub>)NO<sub>2</sub>, C<sub>1-12</sub> alkyl substituted with one or more of F, Cl,
- Br, I, OR<sub>4</sub>, SR<sub>4</sub>, wherein R<sub>4</sub> is hydrogen, alkoxy, aryl, heteroaryl, amines, substituted
- 14 amines, alkene substituted with aryl, heteroaryl or halogen;  $R_5$  is H,  $C_{1-12}$  alkyl,  $C_{3-12}$
- 15 cycloalkyl,  $C_{1-6}$  alkoxy, aryl, heteroaryl or  $C_{1-6}$  alkyl substituted with one or more of F,
- 16 Cl, Br, I or OH;
- 17 R<sub>6</sub> and R<sub>7</sub> are independently H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub>
- 18 alkoxy;
- 19 R<sub>8</sub> and R<sub>9</sub> are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub> alkyl substituted with one or
- 20 more of F, Cl, Br, I,  $OR_5$ ,  $SR_4$ , or  $N(R_6,R_7)$ ;
- 21  $R_{10}$ = H, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl, aryl or
- 22 heteroaryl;
- 23 n is an integer in the range from 0 to 3;

- 24 X is H, CH, CH-S, CH-O, N, CHNR<sub>11</sub> or CCH<sub>2</sub>NR<sub>11</sub>, wherein R<sub>11</sub> is hydrogen, optionally
- substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylcarbonyl, C<sub>1-6</sub>
- 26 alkylcarboxy, aryl or heteroaryl;
- 27 Y and Z are independently hydrogen,  $C_{1-6}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{0-3}$  bridging groups;
- 28 U and V are independently hydrogen, optionally substituted  $C_{1-6}$  alkyl, F, Cl, Br, I,  $C_{1-12}$
- 29 alkyl substituted with one or more of F, Cl, Br, I;
- 30 W is CH<sub>2</sub>, CO, CH<sub>2</sub>NH, -NHCH<sub>2</sub>, -CH<sub>2</sub>NHCH<sub>2</sub>, -CH<sub>2</sub>-N (R<sub>11</sub>)CH<sub>2</sub>-, CH<sub>2</sub>(R<sub>11</sub>)N-,
- 31  $CH(R_{11})$ , S,  $CH_2(CO)$ , NH, O,  $NR_{11}$ ,  $(CO)CH_2$ ,  $N(R_{11})CON(R_{11})$ ,  $N(R_{11})C(=S)N(R_{11})$ ,
- SO<sub>2</sub> or SO, wherein  $R_{11}$  is hydrogen, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,
- 33  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkylcarbonyl,  $C_{1-6}$  alkylcarboxy, aryl or heteroaryl; and
- 34  $R_1$  is NHC(=O) $R_2$ , NHC(=S) $R_2$ , N( $R_3$ ,  $R_4$ ), NR<sub>3</sub> or OR<sub>3</sub>, wherein  $R_2$ ,  $R_3$ ,  $R_4$  are
- 35 independently hydrogen, thiocarbonyl, amines, substituted amines, aryl heteroaroyl,
- 36 heterocyclic, aralkyl, aralkenyl, wherein the heteroaryl and heterocylic rings may contain
- one or more heteroatoms selected from O, S and N; the aryl, heteroaryl, aralkyl and
- aralkenyl rings may be unsubstituted or substituted with one or more of alkyl, halogen,
- 39 nitro, amino or methylenedioxy.

1

2. (Original) Compounds having the structure of Formula II:

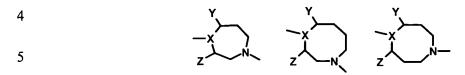


5 Formula II

- 6 and their pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters,
- 7 enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein
- 8  $R_1$  is NHC(=0) $R_2$ , NHC(=S) $R_2$ , N( $R_3$ ,  $R_4$ ), NR<sub>3</sub> or OR<sub>3</sub>, wherein  $R_2$ ,  $R_3$ ,  $R_4$  are
- 9 independently hydrogen, thiocarbonyl, amines, substituted amines, aryl heteroaroyl,
- 10 heterocyclic, aralkyl, aralkenyl, wherein the heteroaryl and heterocyclic rings may contain

- one or more heteroatoms selected from O, S and N; the aryl, heteroaryl, aralkyl and
- aralkenyl rings may be unsubstituted or substituted with one or more of alkyl, halogen,
- 13 nitro, amino or methylenedioxy;
- 14 U and V are independently hydrogen, optionally substituted C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub>
- alkyl substituted with one or more of F, Cl, Br, I;
- Y and Z are independently hydrogen,  $C_{1-6}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{0-3}$  bridging group;
- 17 X is H, CH, CH-S, CH-O, N, CHNR<sub>11</sub> or CCH<sub>2</sub>NR<sub>11</sub>, wherein R<sub>11</sub> is hydrogen, optionally
- substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl carbonyl, C<sub>1-6</sub>
- 19 alkylcarboxy, aryl or heteroaryl;
- 20 W is CH<sub>2</sub>, C=O, CH<sub>2</sub>NH, NHCH<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>N(R<sub>11</sub>)CH<sub>2</sub>, CH<sub>2</sub>N (R<sub>11</sub>), CH(R<sub>11</sub>),
- 21 S,  $CH_2(C=O)$ , NH, O,  $(CO)CH_2$ ,  $N(R_{11})CON(R_{11})$ ,  $SO_2$ , SO,  $NR_{11}$ ,  $N(R_{11})C(=S)N(R_{11})$ ;
- wherein  $R_{11}$  is hydrogen, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,
- 23  $C_{1-6}$  alkyl carbonyl,  $C_{1-6}$  alkylcarboxy, aryl or heteroaryl;
- 24 **n** is an integer in the range from 0 to 3;
- 25  $Q_1$  is O, S or NR<sub>11</sub>, wherein R<sub>11</sub> is as defined above;
- 26 G, J, L are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, -CN, COR<sub>5</sub>, COOR<sub>5</sub>, N(R<sub>6</sub>,R<sub>7</sub>),
- 27 NHCOC( $R_8$ ,  $R_9$ ,  $R_{10}$ ), CON( $R_6$ ,  $R_7$ ), CH<sub>2</sub>NO<sub>2</sub>, NO<sub>2</sub>, CH<sub>2</sub>R<sub>8</sub>, CHR<sub>9</sub>, -CH = N-OR<sub>10</sub>, -
- 28 C=CH-R<sub>5</sub>, OR<sub>5</sub>, SR<sub>5</sub>, -C(R<sub>9</sub>)=C(R<sub>9</sub>)NO<sub>2</sub>,  $C_{1-12}$  alkyl substituted with one or more of F, Cl,
- 29 Br, I, OR<sub>4</sub>, SR<sub>4</sub>, wherein R<sub>4</sub> is as defined above; R<sub>5</sub> is H, C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub>
- alkoxy, aryl or heteroaryl; C<sub>1-6</sub> alkyl substituted with one or more of F, Cl, Br, I or OH;
- R<sub>6</sub> and R<sub>7</sub> are independently H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl or C<sub>1-6</sub>
- 32 alkoxy;
- R<sub>8</sub> and R<sub>9</sub> are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub> alkyl substituted with one or
- 34 more of F, Cl, Br, I,  $OR_5$ ,  $SR_4$ ,  $N(R_6,R_7)$ ; and
- 35 R<sub>10</sub>= H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl, aryl or
- 36 heteroaryl.

- 1 3. (Original) The compound according to claim 2 wherein in Formula II, ring C
- 2 is 6-8 membered in size and the ring may have either two or three carbon atoms between
- 3 each nitrogen atom comprising of:



6 and the ring C may be bridged to form a bicyclic system as shown below:

- 1 4. (Original) The compound according to claim 2 wherein in Formula II, ring C
- 2 is substituted at positions Y and Z with alkyl groups, cycloalkyl groups, fluoro group,
- 3 carboxylic and corresponding esters, amides, substituted alkyls or bridging alkyl groups as
- 4 shown below:

- 2 5. (Original) The compound according to claim 2 wherein in Formula II, ring C
- 3 is 6 membered in size and X is -CH-(NHR<sub>11</sub>), or >CCH<sub>2</sub>NHR<sub>11</sub>-, the ring C is selected
- 4 from the group consisting of the following rings wherein  $R_{11}$  is the same as defined
- 5 earlier,

or in addition to the above, the ring C includes the following structures:

6 Formula III

5

7 wherein U, V, Y, Z, X, W, G, J, L, R<sub>1</sub>, R<sub>11</sub> and n are as defined earlier.

- 1 7. (Original) The compound according to claim 2 having the structure of
- 2 Formula IV:
- 6 Formula IV
- 7 wherein U, V, Y, Z, X, W, G, J, L, R<sub>1</sub> and n are as defined earlier.
- 1 8. (Original) The compound according to claim 2 having the structure of
- 2 Formula V:
- 6 Formula V
- 7 wherein U, V, X, Y, Z, W, G, J, L, R<sub>1</sub> and n are as defined earlier.
- 1 9. (Original) A compound selected from the group consisting of:
- 2 (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
- 3 oxo-5-oxazolidinyl]methyl]-3-(2,4-dichlorophenyl)acrylamide (Compound No. 1)
- 4 (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
- 5 oxo-5-oxazolidinyl|methyl|-3-(4-fluorophenyl)acrylamide (Compound No. 2)
- 6 (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
- 7 oxo-5-oxazolidinyl]methyl]-2-benzo(b)furanamide (Compound No. 3)
- 8 (S)-N-[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
- 9 oxo-5-oxazolidinyl]methylamine (Compound No. 4)

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(S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
10
             oxo-5-oxazolidinyl]methyl]-3-(phenyl)acrylamide (Compound No. 5)
11
12
            (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
13
            oxo-5-oxazolidinyl]methyl]-3-(1,3-benzodioxol-5-yl)acrylamide (Compound No.
14
             6)
15
             (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-thienyl-(5-nitro)methyl}] piperazinyl] phenyl]-
             2-oxo-5-oxazolidinyl]methyl]-3-(4-fluorophenyl)acrylamide (Compound No. 7)
16
17
            (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-thienyl-(5-nitro)methyl}] piperazinyl] phenyl]-
18
             2-oxo-5-oxazolidinyl]methyl]-3-(4-nitrophenyl)acrylamide (Compound No. 8)
19
            (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-thienyl-(5-nitro)methyl}] piperazinyl] phenyl]-
             2-oxo-5-oxazolidinyl]methyl]-3-(2,4-dichlorophenyl)acrylamide (Compound
20
21
            No.9)
22
             (S)-N-[1-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-
23
            2-oxo-5-oxazolidinyl]methyl]]-thiourea (Compound No. 10)
24
             (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-thienyl-(5-nitro)methyl}]piperazinyl]phenyl]-2-
             oxo-5-oxazolidinyl]methyl]isothiocyanate (Compound No. 11)
25
            (S)-N-[1-[3-[3-Fluoro-4-[N-1-[4-{2-thienyl-(5-nitro)methyl}] piperazinyl]
26
27
            phenyl]-2-oxo-5-oxazolidinyl]methyl]]-thiourea (Compound No. 12)
28
            (S)-N-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperazinyl] phenyl]-2-
29
             oxo-5-oxazolidinyl]methyl]isothiocyanate (Compound No. 13)
30
             5(S)-Isoxazol-3-yl-oxymethyl-3-[3-fluoro-4-[4-[(4-bromo-5-nitro-2-thienyl)
31
            methyl]piperazinyl-1-yl]phenyl]oxazolidin-2-one (Compound No. 14)
32
             5(S)-Isoxazol-3-yl-oxymethyl-3-[3-fluoro-4-[4-[(5-nitro-2-furyl)methyl]
33
            piperazinyl-1-yl]phenyl]oxazolidin-2-one (Compound No. 15)
34
             5(S)-Isoxazol-3-yl-oxymethyl-3-[3-fluoro-4-[4-[(5-nitro-2-thienyl)
35
             methyl]piperazinyl-1-yl]phenyl]oxazolidin-2-one (Compound No. 16)
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36 (S)-N-[1-[[3-[3-Fluoro-4-[N-1-[4-{2-furyl-(5-nitro)methyl}] piperaz	razinyl  r	phenyl -
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- 2-oxo-5-oxazolidinyl]methyl]]3,3-dimethyl-thiourea (Compound No. 17)
- 38 (S)-N- $[3-[3-Fluoro-4-[N-1-[4-{2-thienyl-(5-nitro)methyl}]]$  piperazinyl]
- 39 phenyl]-2-oxo-5-oxazolidinyl]methylamine (Compound No. 18)
- 1 10. (Original) A pharmaceutical composition comprising the compound of claims
- 2 1, 2 or 9 and a pharmaceutical acceptable carrier.
- 1 11. (Original) A pharmaceutical composition comprising a pharmaceutically
- 2 effective amount of compound according to claims 1, 2 or 9 or a physiologically
- 3 acceptable acid addition salt thereof with a pharmaceutical acceptable carrier for treating
- 4 microbial infections.
- 1 12. (Original) A method of treating or preventing microbial infections in a
- 2 mammal comprising administering to the said mammal, the pharmaceutical composition
- 3 according to claim 11.
- 1 13. (Original) The method according to claim 12 wherein the microbial infections
- 2 are caused by gram-positive and gram-negative bacteria.
- 1 14. (Cancelled).

6

- 1 15. (Original) A method of treating or preventing aerobic and anaerobic bacterial
- 2 infections in a mammal comprising administering to said mammal, a therapeutically
- 3 effective amount of a compound having the structure of Formula I

4
$$R-T-W-X C N B A$$

$$(CH_2)n C O B$$

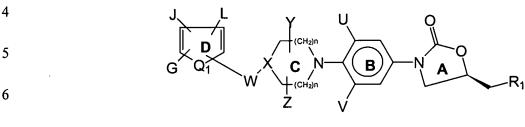
$$(CH_2)n V A$$

7 Formula I

- 8 and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters,
- 9 enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

- 10 T is a five to seven membered heterocyclic ring, substituted heterocyclic ring, aryl or
- substituted aryl, bound to the ring C with a linker W, and is further substituted by a group
- represented by **R**, wherein R is H,  $C_{1-6}$  alkyl, F, Cl, Br, I, -CN,  $COR_5$ ,  $COOR_5$ ,  $N(R_6,R_7)$ ,
- 13 NHCOC( $R_8$ ,  $R_9$ ,  $R_{10}$ ), CON( $R_6$ ,  $R_7$ ), CH<sub>2</sub>NO<sub>2</sub>, NO<sub>2</sub>, CH<sub>2</sub>R<sub>8</sub>, CHR<sub>9</sub>, -CH = N-OR<sub>10</sub>, -
- 14 C=CH-R<sub>5</sub>, OR<sub>5</sub>, SR<sub>5</sub>, -C(R<sub>9</sub>)=C(R<sub>9</sub>)NO<sub>2</sub>,  $C_{1-12}$  alkyl substituted with one or more of F, Cl,
- Br, I, OR<sub>4</sub>, SR<sub>4</sub>, wherein R<sub>4</sub> is hydrogen, alkoxy, aryl, heteroaryl, amines, substituted
- amines, alkene substituted with aryl, heteroaryl or halogens; R<sub>5</sub> is H, C<sub>1-12</sub> alkyl, C<sub>3-12</sub>
- 17 cycloalkyl, C<sub>1-6</sub> alkoxy, aryl or heteroaryl; C<sub>1-6</sub> alkyl substituted with one or more of F,
- 18 Cl, Br, I or OH;
- 19 R<sub>6</sub> and R<sub>7</sub> are independently H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub>
- 20 alkoxy;
- 21 R<sub>8</sub> and R<sub>9</sub> are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub> alkyl substituted with one or
- more of F, Cl, Br, I,  $OR_5$ ,  $SR_4$ , or  $N(R_6,R_7)$ ;
- 23 R<sub>10</sub>= H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl, aryl or
- 24 heteroaryl;
- n is an integer in the range from 0 to 3;
- 26 X is H, CH, CH-S, CH-O, N, CHNR<sub>11</sub> or CCH<sub>2</sub>NR<sub>11</sub>, wherein R<sub>11</sub> is hydrogen, optionally
- substituted C<sub>1-12</sub> alkyl C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkylcarbonyl, C<sub>1-6</sub>
- alkylcarboxy, aryl or heteroaryl;
- Y and Z are independently hydrogen,  $C_{1-6}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{0-3}$  bridging groups;
- 30 U and V are independently hydrogen, optionally substituted C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub>
- 31 alkyl substituted with one or more of F, Cl, Br, I;
- 32 W is CH<sub>2</sub>, CO, CH<sub>2</sub>NH, -NHCH<sub>2</sub>, -CH<sub>2</sub>NHCH<sub>2</sub>, -CH<sub>2</sub>-N (R<sub>11</sub>)CH<sub>2</sub>-, CH<sub>2</sub>(R<sub>11</sub>)N-,
- 33  $CH(R_{11})$ , S,  $CH_{2}(CO)$ , NH, O,  $NR_{11}$ ,  $(CO)CH_{2}$ ,  $N(R_{11})CON(R_{11})$ ,  $N(R_{11})C(=S)N(R_{11})$ ,
- SO<sub>2</sub> or SO; wherein  $R_{11}$  is hydrogen, optionally substituted  $C_{1,12}$  alkyl,  $C_{3,12}$  cycloalkyl,
- 35  $C_{1.6}$  alkoxy,  $C_{1.6}$  alkyl,  $C_{1.6}$  alkylcarbonyl,  $C_{1.6}$  alkylcarboxy, aryl or heteroaryl; and

- 36  $R_1$  is NHC(=O) $R_2$ , NHC(=S) $R_2$ , N( $R_3$ ,  $R_4$ ), NR<sub>3</sub> or OR<sub>3</sub>, wherein  $R_2$ ,  $R_3$ ,  $R_4$  are
- 37 independently hydrogen, thiocarbonyl, amines, substituted amines, aryl heteroaroyl,
- heterocyclic, aralkyl, aralkenyl, wherein the heteroaryl and heterocylic rings may contain
- 39 one or more heteroatoms selected from O, S and N; the aryl, heteroaryl, aralkyl and
- aralkenyl rings may be unsubstituted or substituted with one or more of alkyl, halogen,
- 41 nitro, amino or methylenedioxy.
- 1 16. (Original) A method of treating or preventing aerobic and anaerobic bacterial
- 2 infections in a mammal comprising administering to said mammal, a therapeutically
- 3 effective amount of a compound having the structure of Formula II:



7 Formula II

- 8 and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters,
- 9 enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein
- 10  $R_1$  is NHC(=0) $R_2$ , NHC(=S) $R_2$ , N( $R_3$ ,  $R_4$ ), NR<sub>3</sub> or OR<sub>3</sub>, wherein  $R_2$ ,  $R_3$ ,  $R_4$  are
- independently hydrogen, thiocarbonyl, amines, substituted amines, aryl heteroaroyl,
- 12 heterocyclic, aralkyl, aralkenyl, wherein the heteroaryl and heterocylic rings may contain
- one or more of heteroatoms selected from O, S and N; the aryl, heteroaryl, aralkyl and
- 14 aralkenyl rings may be unsubstituted or substituted with one or more of alkyl, halogen,
- 15 nitro, amino or methylenedioxy;
- 16 U and V are independently hydrogen, optionally substituted C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub>
- 17 alkyl substituted with one or more of F, Cl, Br, I;
- 18 Y and Z are independently hydrogen, C<sub>1-6</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>0-3</sub> bridging group;
- 19 X is H, CH, CH-S, CH-O, N, CHNR<sub>11</sub> or CCH<sub>2</sub>NR<sub>11</sub>, wherein R<sub>11</sub> is hydrogen, optionally
- substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkyl carbonyl, C<sub>1-6</sub>
- 21 alkylcarboxy, aryl or heteroaryl;

- 22 W is CH<sub>2</sub>, C=O, CH<sub>2</sub>NH, NHCH<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>N(R<sub>11</sub>)CH<sub>2</sub>, CH<sub>2</sub>N (R<sub>11</sub>),
- 23  $CH(R_{11})$ , S,  $CH_2(C=O)$ , NH, O,  $(CO)CH_2$ ,  $N(R_{11})CON(R_{11})$ , SO<sub>2</sub>, SO,  $NR_{11}$ ,
- N(R<sub>11</sub>)C(=S)N(R<sub>11</sub>); wherein R<sub>11</sub> is hydrogen, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$
- 25 cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl carbonyl,  $C_{1-6}$  alkylcarboxy, aryl or heteroaryl;
- 26 **n** is an integer in the range from 0 to 3;
- 27  $Q_1$  is O, S or NR<sub>11</sub>, wherein R<sub>11</sub> is as defined earlier;
- 28 G, J, L are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, -CN, COR<sub>5</sub>, COOR<sub>5</sub>, N(R<sub>6</sub>,R<sub>7</sub>),
- 29 NHCOC( $R_8$ ,  $R_9$ ,  $R_{10}$ ), CON( $R_6$ ,  $R_7$ ), CH<sub>2</sub>NO<sub>2</sub>, NO<sub>2</sub>, CH<sub>2</sub>R<sub>8</sub>, CHR<sub>9</sub>, -CH = N-OR<sub>10</sub>, -
- 30 C=CH-R<sub>5</sub>, OR<sub>5</sub>, SR<sub>5</sub>, -C(R<sub>9</sub>)=C(R<sub>9</sub>)NO<sub>2</sub>,  $C_{1-12}$  alkyl substituted with one or more F, Cl,
- Br, I, OR<sub>4</sub>, SR<sub>4</sub>, wherein R<sub>4</sub> is as defined above; R<sub>5</sub> is H, C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub>
- alkoxy, aryl or heteroaryl;  $C_{1-6}$  alkyl substituted with one or more of F, Cl, Br, I or OH;
- R<sub>6</sub> and R<sub>7</sub> are independently H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl or C<sub>1-6</sub>
- 34 alkoxy;
- 35 R<sub>8</sub> and R<sub>9</sub> are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub> alkyl substituted with one or
- 36 more of F, Cl, Br, I,  $OR_5$ ,  $SR_4$ ,  $N(R_6,R_7)$ ; and
- R<sub>10</sub>= H, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl, aryl or
- 38 heteroaryl.
- 1 17. 19. (Cancelled)
- 2 20. (Original) The method according to claim 16 having the structure of Formula 3 , III,

7 FORMULA III

8 wherein U, V, Y, Z, W, X, G, J, L, R<sub>1</sub>, R<sub>11</sub> and n are as defined earlier.

1 21. (Original) The method according to claim 16 having the structure of Formula IV,

5 FORMULA IV

- 6 wherein U, V, Y, Z, W, X, G, J, L, R<sub>1</sub> and n are as defined earlier.
- 7 22. (Original) The method according to claim 16 having the structure of Formula V,

11 FORMULA V

- wherein U, V, X, Y, Z, W, G, J, L, R<sub>1</sub> and n are as defined earlier.
- 13 23. (Original) A process for preparing a compound of Formula I,

17 Formula I

- and its pharmaceutically acceptable salts, pharmacecltically acceptable solvates, esters,
- 19 enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

- 1 T is a five to seven membered heterocyclic ring, substituted heterocyclic ring, aryl or
- 2 substituted aryl, bound to the ring C with a linker W, and is further substituted by a group
- 3 represented by  $\mathbf{R}$ , wherein R is H,  $C_{1-6}$  alkyl, F, Cl, Br, I, -CN, COR<sub>5</sub>, COOR<sub>5</sub>, N(R<sub>6</sub>,R<sub>7</sub>),
- 4 NHCOC( $R_8$ ,  $R_9$ ,  $R_{10}$ ), CON( $R_6$ ,  $R_7$ ), CH<sub>2</sub>NO<sub>2</sub>, NO<sub>2</sub>, CH<sub>2</sub>R<sub>8</sub>, CHR<sub>9</sub>, -CH = N-OR<sub>10</sub>, -C=CH-
- 5 R<sub>5</sub>, OR<sub>5</sub>, SR<sub>5</sub>, -C(R<sub>9</sub>)=C(R<sub>9</sub>)NO<sub>2</sub>, C<sub>1-12</sub> alkyl substituted with one or more of F, Cl, Br, I, OR<sub>4</sub>,
- 6 SR<sub>4</sub>, wherein R<sub>4</sub> is hydrogen, alkoxy, aryl, heteroaryl, amines, substituted amines, alkene
- substituted with aryl, heteroaryl or halogens; R<sub>5</sub> is H, C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub> alkoxy,
- 8 aryl or heteroaryl;  $C_{1-6}$  alkyl substituted with one or more of F, Cl, Br, I or OH;
- 9 R<sub>6</sub> and R<sub>7</sub> are independently H, optionally substituted C<sub>1-12</sub> alkyl, C<sub>3-12</sub> cycloalkyl, C<sub>1-6</sub>
- 10 alkoxy;
- 11 R<sub>8</sub> and R<sub>9</sub> are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub> alkyl substituted with one or more
- 12 of F, Cl, Br, I,  $OR_5$ ,  $SR_4$ , or  $N(R_6,R_7)$ ;
- 13  $R_{10}$ = H, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl, aryl or
- 14 heteroaryl;
- n is an integer in the range from 0 to 3;
- 16 X is H, CH, CH-S, CH-O, N, CHNR<sub>11</sub> or CCH<sub>2</sub>NR<sub>11</sub>, wherein R<sub>11</sub> is hydrogen, optionally
- substituted  $C_{1-12}$  alkyl  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkylcarbonyl,  $C_{1-6}$
- alkylcarboxy, aryl or heteroaryl;
- 19 Y and Z are independently hydrogen,  $C_{1-6}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{0-3}$  bridging groups;
- 20 U and V are independently hydrogen, optionally substituted  $C_{1-6}$  alkyl, F, Cl, Br, I,  $C_{1-12}$  alkyl
- 21 substituted with one or more of F, Cl, Br, I;
- 22 **W** is CH<sub>2</sub>, CO, CH<sub>2</sub>NH, -NHCH<sub>2</sub>, -CH<sub>2</sub>NHCH<sub>2</sub>, -CH<sub>2</sub>-N (R<sub>11</sub>)CH<sub>2</sub>-, CH<sub>2</sub>(R<sub>11</sub>)N-, CH(R<sub>11</sub>), S,
- 23  $CH_2(CO)$ , NH, O,  $NR_{11}$ ,  $(CO)CH_2$ ,  $N(R_{11})CON(R_{11})$ ,  $N(R_{11})C(=S)N(R_{11})$ ,  $SO_2$  or SO;
- wherein  $R_{11}$  is hydrogen, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$
- 25 alkyl, C<sub>1-6</sub> alkylcarbonyl, C<sub>1-6</sub> alkylcarboxy, aryl or heteroaryl; and

- 1 R<sub>1</sub> is NHC(=O)R<sub>2</sub>, NHC(=S)R<sub>2</sub>, N(R<sub>3</sub>, R<sub>4</sub>), NR<sub>3</sub> or OR<sub>3</sub>, wherein R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> are independently
- 2 hydrogen, thiocarbonyl, amines, substituted amines, aryl heteroaroyl, heterocyclic, aralkyl,
- aralkenyl, wherein the heteroaryl and heterocylic rings may contain one or more heteroatoms
- 4 selected from O, S and N; the aryl, heteroaryl, aralkyl and aralkenyl rings may be
- 5 unsubstituted or substituted with one or more of alkyl, halogen, nitro, amino or
- 6 methylenedioxy;
- 7 which comprises reacting an amine of Formula VI,

11 Formula VI

- with a heteroaromatic compound of Formula R-T-W-R<sub>12</sub> wherein R, T, W, R<sub>1</sub>, Y, Z, U, V and
- n are as defined earlier and M<sub>1</sub> is NH, NHR<sub>13</sub>, CHNHR<sub>13</sub>, -CHCH<sub>2</sub>NHR<sub>13</sub>, -CCH<sub>2</sub>NHR<sub>13</sub>,
- wherein  $R_{13}$  is H, ethyl, methyl, isopropyl, acetyl, cyclopropyl, alkoxy or acetyl and  $R_{12}$  is a
- suitable leaving group selected from the group consisting of fluoro, chloro, bromo, iodo,
- 16 SCH<sub>3</sub>,  $-SO_2CH_3$ ,  $-SO_2CF_3$ , Tos, OC<sub>6</sub>H<sub>5</sub>, -COOH or -CHO.
- 17 24. (Cancelled).
- 18 25. (Original) A process for preparing a compound of Formula II,

22 Formula II

- 23 and its pharmaceutically acceptable salts, pharmaceutically acceptable solvates, esters,
- 24 enantiomers, diastereomers, N-oxides, polymorphs, prodrugs or metabolites, wherein

- 1 R<sub>1</sub> is NHC(=O)R<sub>2</sub>, NHC(=S)R<sub>2</sub>, N(R<sub>3</sub>, R<sub>4</sub>), NR<sub>3</sub> or OR<sub>3</sub>, wherein R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> are independently
- 2 hydrogen, thiocarbonyl, amines, substituted amines, aryl heteroaroyl, heterocyclic, aralkyl,
- 3 aralkenyl, wherein the heteroaryl and heterocylic rings may contain one or more of
- 4 heteroatoms selected from O, S and N; the aryl, heteroaryl, aralkyl and aralkenyl rings may be
- 5 unsubstituted or substituted with one or more of alkyl, halogen, nitro, amino or
- 6 methylenedioxy;
- 7 U and V are independently hydrogen, optionally substituted  $C_{1-6}$  alkyl, F, Cl, Br, I,  $C_{1-12}$  alkyl
- 8 substituted with one or more F, Cl, Br, I;
- Y and **Z** are independently hydrogen,  $C_{1-6}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{0-3}$  bridging group;
- 10 X is H, CH, CH-S, CH-O, N, CHNR<sub>11</sub> or CCH<sub>2</sub>NR<sub>11</sub>, wherein R<sub>11</sub> is hydrogen, optionally
- substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl carbonyl,  $C_{1-6}$  alkylcarboxy,
- 12 aryl or heteroaryl;
- 13 W is CH<sub>2</sub>, C=O, CH<sub>2</sub>NH, NHCH<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>N( $R_{11}$ )CH<sub>2</sub>, CH<sub>2</sub>N ( $R_{11}$ ), CH( $R_{11}$ ), S,
- 14  $CH_2(C=O)$ , NH, O,  $(CO)CH_2$ ,  $N(R_{11})CON(R_{11})$ ,  $SO_2$ , SO,  $NR_{11}$ ,  $N(R_{11})C(=S)N(R_{11})$ ;
- wherein  $R_{11}$  is hydrogen, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$
- 16 alkyl carbonyl,  $C_{1-6}$  alkylcarboxy, aryl or heteroaryl;
- 17 **n** is an integer in the range from 0 to 3;
- 18  $Q_1$  is O, S or NR<sub>11</sub>, wherein R<sub>11</sub> is as defined earlier;
- 19 G, J, L are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, -CN, COR<sub>5</sub>, COOR<sub>5</sub>, N(R<sub>6</sub>,R<sub>7</sub>),
- 20 NHCOC( $R_8$ ,  $R_9$ ,  $R_{10}$ ), CON( $R_6$ ,  $R_7$ ), CH<sub>2</sub>NO<sub>2</sub>, NO<sub>2</sub>, CH<sub>2</sub>R<sub>8</sub>, CHR<sub>9</sub>, -CH = N-OR<sub>10</sub>, -C=CH-
- 21 R<sub>5</sub>, OR<sub>5</sub>, SR<sub>5</sub>, -C(R<sub>9</sub>)=C(R<sub>9</sub>)NO<sub>2</sub>, C<sub>1-12</sub> alkyl substituted with one or more F, Cl, Br, I, OR<sub>4</sub>,
- SR<sub>4</sub>, wherein R<sub>4</sub> is as defined above; R<sub>5</sub> is H,  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy, aryl or
- 23 heteroaryl; C<sub>1-6</sub> alkyl substituted with one or more of F, Cl, Br, I or OH;
- $R_6$  and  $R_7$  are independently H, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl or  $C_{1-6}$
- 25 alkoxy;

1 R<sub>8</sub> and R<sub>9</sub> are independently H, C<sub>1-6</sub> alkyl, F, Cl, Br, I, C<sub>1-12</sub> alkyl substituted with one or more

- of F, Cl, Br, I,  $OR_5$ ,  $SR_4$ ,  $N(R_6,R_7)$ ; and
- 3  $R_{10}$ = H, optionally substituted  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $C_{1-6}$  alkoxy,  $C_{1-6}$  alkyl, aryl or
- 4 heteroaryl;
- 5 comprising reacting a compound of Formula VI,

9 with a heteroaromatic compound of Formula VII,

12 Formula VII

- wherein R<sub>1</sub>, U, V, Y, Z, G, J, L and Q<sub>1</sub> are as defined earlier and M<sub>1</sub> is NH, NHR<sub>13</sub>,
- 14 CHNHR<sub>13</sub>, -CHCH<sub>2</sub>NHR<sub>13</sub>, -CCH<sub>2</sub>NHR<sub>13</sub>, wherein R<sub>13</sub> is H, ethyl, methyl, isopropyl, acetyl,
- cyclopropyl, alkoxy or acetyl and R<sub>12</sub> is a suitable leaving group selected from the group
- 16 consisting of fluoro, chloro, bromo, iodo, SCH<sub>3</sub>, -SO<sub>2</sub>CH<sub>3</sub>, -SO<sub>2</sub>CF<sub>3</sub>, Tos, OC<sub>6</sub>H<sub>5</sub>, -COOH or
- 17 –CHO.
- 1 26.-41. (Cancelled)